RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TRAVIS D. FOX,
EDWIN S. OLDS, MARK A. GAERTNER,
and ABBAS ALI

Appeal 2007-3341
Application 10/602,254
Technology Center 2100

Oral Hearing Held: October 23, 2007

Before KENNETH W. HAIRSTON, LEE E. BARRETT, and
ROBERT E. NAPPI, *Administrative Patent Judges*.

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The above-entitled matter came on for hearing on Tuesday, October 23, 2007, commencing at 1:21 p.m., at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia, before Dawn A. Brown, Notary Registration No. 7066896, Notary Public.

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PROCEEDINGS

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THE USHER: Calendar Number 14, Mr. McCarthy.

JUDGE HAIRSTON: How are you today?

MR. McCARTHY: I'm good.

May it please the panel, I'm Randy McCarthy with the Oklahoma City-based law firm of Feller Snider and am here today on behalf of Seagate Technology, L.L.C.

I know you all have reviewed the briefs in the case. You are familiar with the issues taking place. I'll try not to go over all of that. I'd prefer to answer any questions you might have, or at least I say I would. But I'd prefer to spend time that is best useful to you all to understand our position and ultimately how the case ought to be judged.

Basically, the issues here, since several of them have been dropped, the main issues are the 102 rejection over the Olds reference, and

then we'll talk briefly about the 103 reference with the other two.

Before we do that, if it is acceptable to you, since I came all this way, I want to tell you all about our exciting invention. I'd like to, for your indulgence, just take a couple of minutes to give you a background.

Basically, what is going on here is this. Every drive wishes to be a RAM device, and obviously, I'm speaking, of course, in just generally what the preferred embodiment is, embodiment in a disk drive. That statement still stands.

A disk drive wishes it could be like its brethren, the RAM, in which case it always asks for some data and immediately comes back. That is what it aspires to do.

Unfortunately, certain types of data storage devices, like disk drives, have heads that have to move and disks that rotate. The data are located on difference surfaces at different radial locations. So there is a built-in latency, electromechanical latency that has to be figured in.

So the driver can't be a hundred percent responsive in terms of always being able to respond to data-access requirements, so it is going to do the next best thing. You're going to get an average timing on that.

So in other words, the overall data transfer rate, yeah, occasionally there might be an outlier, but overall, the host and ultimately the user is pleased with the apparent speed at which the data are coming off the drive.

Okay. The Olds reference, which, of course, is the prior art cited in the 102 case and it is owned by Seagate as well, gives these really interesting time charts, and I'm sure you have looked at those. I'd like to discuss them briefly.

What is under consideration here are a first command, first data command, data 1 and 2.

JUDGE HAIRSTON: Figure 4?

MR. McCARTHY: Yes, sir. Figures 4, 5 and 6.

In Figure 4, there is no speculative data. Simply, the data 1 command is executed. There is a seek and there is a period of time latency while we wait for the second data to come around. When it gets there, you execute the second command.

Now, what Olds recognizes is that speculative data, that is nonrequested data, may have merit, may have value to the user. We're going to spend this time anyway; why don't we go grab some speculative data? Of course, we're not the first ones to have invented that, even in the Olds case. So Olds gives a couple of alternative examples.

In Figure 5, you stay on track and pick up this additional data called read lookahead data. In other words, you pick up additional data on that track and wait until the last possible second. Then you do your seek and then you catch up the second data. And then the third one, you do it sometime in the middle. You say, Well, we'll have some data from here and here.

In all three cases, the second data command is executed at the exact same time. There is no way to physically advance that. It is a function of physics, the time-space continuum. We have to wait so many milliseconds until that second data are going to be executed. So Olds says, Let's get the data we can in that interval. Okay.

But what -- the improvement here is represented, by the case that we're looking at right now, is what if we decided to extend the time to get speculative data and forgo the opportunity to execute that? That is the

question. That is really the nub of what the preferred embodiments in the spec are talking about is making the decision as to instead of staying here.

For example, staying here in Figure 5 all the way to this point and then doing the seek so we get to this data, just by way of example, what if we stay on this track some more and get this data out here?

What the new specification is talking about is what if we make the decision at this point that this data may have greater utility than this data. And we're going to burn RAM to ultimately get this data.

It is somewhat counterintuitive because ultimately, as I said before, what we're trying to do do is try to bang out these access commands as fast as possible, but we judge in some cases it might make sense to get the speculative data, the unrequested data, in lieu of, instead of going ahead and satisfying the second command.

Thank you for allowing me to say all of that. I probably would have exploded if I hadn't had a chance to get that to you. It will be helpful as we look at the claims.

You all have read these claims. You know what I'm going to say. Let me say it anyway. When an examiner is charged with looking at a claim, he is obviously supposed to give the broadest reasonable interpretation. We love that. That is no problem. Has to be consistent with the specification. We love that, too. That is not a problem.

However, an interpretation of a claim turn that is inconsistent with the specification, particularly if there is an explicit definition in that specification, we have gone beyond what is reasonable, and that is what we believe has happened in this case.

Our understanding of the issues that remain with regard to the 102 rejection is this: That the intervening seek command -- for example,

this seek command I pointed to earlier -- could be construed as the recited data transfer command in Claims 1 and 25, either in its entirety or as part of the larger command. Both of those issues appear to have been advanced.

It doesn't matter because in both cases, we believe that that is an error. That is -- that the specification clearly distinguishes between the execution of the data commands and any kind of intervening commands or other things you might do in order to set up that command.

The board is directed to the specification on page 7. If you'll allow me, I'd like to read it. This is in the brief. The specification provides an explicit definition for the term access time. Access time, of course, is that time between the execution of two commands.

In the spec, at page 7, lines 3 through 7, access time is the amount of time between completion of an execution of an access command and a subsequent execution of a net-scheduled access command. Access time includes a seek time, which includes head settle time, a setup time and a latency period.

And it goes on in the remaining part of that specification to make it clear that the access time is not part of the execution of the first and second commands. And part of that access time might include the seek command. So that is the position of the applicant.

Are there any questions or clarifications?

JUDGE BARRETT: Claim 1, you say, Execution of a second data transfer command to transfer speculative data in lieu thereof. Is to transfer speculative in lieu thereof, is that actually a positive-method step or is that some sort of intended use?

MR. McCARTHY: I believe that is a -- the former. The first thing you said.

JUDGE BARRETT: First, executing -- the present participle -- executing a first data transfer command. Second, delaying execution of second data transfer command. Doesn't actually say and transferring data during that time. It is sort of like a future or a possibility or something that could happen during this delayed execute.

MR. McCARTHY: If I may, let me suggest that it is an alternative. It is a branch. What you're doing is, the claim language says to delay execution to transfer this in lieu thereof, instead of that. So I believe it is a positive limitation, not just a desired result. It affirmatively requires the delay execution to do this. We're not just saying execute first and then --

JUDGE BARRETT: -- delay for some reason.

MR. McCARTHY: Right, right, right.

JUDGE BARRETT: And, you know, that may be one possibility, something that could happen during the delay.

MR. McCARTHY: That is correct, Your Honor.

The term "data transfer command," to my knowledge, doesn't appear exactly in the spec. That is not a requirement obviously. And there was a 112, paragraph 1 rejection of the description, which was disposed, of which I'm thankful for.

But there were all sorts of terms that hit all around it. There is access command, scheduled command, there is something called the next best disk command, the NBDC.

There is the next scheduled access command, there is a next command, there is a pending command, there is a command of interest, there is a data exchange operation, there is a pending operation, and there is even a next best access command.

Each of these appear in the spec. They're all talking about the same thing. All of these are data transfer commands, and none of them include the seek that would be necessary in order for the field to accept in order to carry out that command.

So that is the language in Claims 1 and 25. If it is acceptable to you, I'd like to talk just briefly about Claim 21. It uses slightly different language. I believe the result is the same. Claim 21 -- well, you can read it as well as I can.

It says the method comprises steps of transferring first data in response to an execution of a first pending command -- the language here is first pending command -- and transferring speculative data instead of second data associated with the second pending command during the next available latency period for the second command with the speculative data are adjudged as having a utility greater than a utility of the second data.

As we briefed in here, obviously, we're talking about pending commands. I don't think there are any problems a skilled artisan wouldn't understand. First of all, I don't know why we use 25 different modifiers, but that is just the way things turn out sometimes. They're all talking about the data transfer command or the pending command.

You'll notice that it says "instead of," though, and that is important in this claim, and that is not by the seek. It is also -- notice that Claim 21 talks about the utility of the data being adjudged as having a greater utility. I don't see how that would be carried out by a seek, which doesn't have any data associated with it.

But even if you want to say it does, the second data are still going to be at the same time. I mean, that is the advantage here. If you'll allow me to point to this again, Figure 5, again, if you do the -- if you catch

up this data and do the seek, this data up here are still going to be carried out at the same time. So that language is not met.

And it doesn't make any sense to say "instead of" because you're both -- you can do the seek early or late. You still get the data, so there is no "instead." And it is -- I don't know how to apply the utility.

The utility of this is supposed to be greater than that. Fox doesn't even mention that, so I don't see how we can reasonably conclude that Claim 21 is anticipated. Of course, that is your judgment and not mine.

Are there any questions on Claim 21 that I might --

JUDGE BARRETT: Claim 21 is little bit more explicit about transferring data. That is why I asked that first question.

MR. McCARTHY: Yes, Your Honor. I appreciate that, Your Honor. Your point was made very clear as I was reading Claim 21. There is no question it is met in that claim, for sure.

As far as the 103 rejection, in closing, I simply want to say that we're all surprised, perhaps we're delighted, with the new KSR case. When it first came down, I was rather alarmed as a practitioner, but on the other hand, as I've had a chance to work through it, I actually like it. I may be the only practitioner you see for a while who does, but I do.

JUDGE HAIRSTON: As an aside, what part do you like?

MR. McCARTHY: I like the fact that it takes away some of the strictures. I use this because I'm an applicant. I've always said that, you know, unless you show clear and particular evidence for the motivation, and I hammered a lot of people, but as I've gone along, I understand Graham is a better statement of the law.

At the end of the day, you've got to use your gut feeling. I'm sorry to say, that is what it is. That is how the statute is written. That is how Graham reads. It is how all these other cases read.

And we all want clarity, but at the end of the day, you have to have sort of this articulated reasoning to show the combination. Graham says you have to be able to show the skilled artisan would find it desirable to make this combination.

That really is what that TSM test was all about. And I like that. I like it here because I don't see how the skilled artisan would find it desirable to make these changes. You've got to have some articulated reasoning, which is another thing in KSR. You know, it says, You can't just say I think it is obvious. You have to lay it out.

And in this particular case, I'm sure you all noted this, and I don't want to make a big deal out of it, but I don't think the articulated reasoning is there.

There is a comment when it is talking about the motivation to combine or the desirability to combine the Furuumi and Hardy references. It says this is a circular argument. Let's go on to something else. I understand that. That is okay.

But I think the fact remains that since Furuumi doesn't talk about speculative data at all and Hardy merely says it would be a good idea to go out and prefetch some additional pages, I don't see how a skilled artisan would find that to be desirable. In fact, I would see it would teach a way, which I still think is there, I think the desirability is there, and here is why.

In the mindset of Olds or Furuumi or the prior art, what you're trying to do is you still want to execute all of the data commands as quickly

as possible. What you're doing is you maybe want to pull in some additional data for a future host hit, but the conventional thinking is you're still going to do that as fast as you can.

So to claim to delay it is counterintuitive. And I do not believe that it is neither disclosed or countersuggested by the art.

The final thing I like about KSR is it leaves undisturbed the requirement that all of the limitations we taught are suggested by the art. That is not met here as is briefed in the record.

Are there any further questions or things I might say?

JUDGE HAIRSTON: That should do it.

MR. McCARTHY: Thank you very much.

(Whereupon, the proceedings at 1:38 p.m. were concluded.)

CERTIFICATE OF REPORTER

I, Dawn A. Brown, do hereby certify that the foregoing proceedings were taken by me in stenotype and thereafter reduced to typewriting under my supervision; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and further, that I am not a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of the action.

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Dawn A. Brown
Notary Public